UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

NOTICE OF ALLOWANCE AND FEE(S) DUE

2202

7590

05/28/2010

BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747 EXAMINER

EDWARDS, LYDIA E

ART UNIT PAPER NUMBER

1797 DATE MAILED: 05/28/2010

I	APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
	10/542.189	07/14/2005	Shiro Kanegasaki	1752-0172PUS1	2696

TITLE OF INVENTION: APPARATUS FOR DETECTING CELL CHEMOTAXIS

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	08/30/2010

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE

Commissioner for Patents P.O. Box 1450

Alexandria, Virginia 22313-1450 (571)-273-2885 or <u>Fax</u>

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for

maintenance fee notifications. Note: A certificate of mailing can only be used for domestic mailings of the CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address) Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission. 2292 7590 05/28/2010 Certificate of Mailing or Transmission BIRCH STEWART KOLASCH & BIRCH I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below. PO BOX 747 FALLS CHURCH, VA 22040-0747 (Depositor's name (Signature (Date APPLICATION NO. FIRST NAMED INVENTOR ATTORNEY DOCKET NO. CONFIRMATION NO. FILING DATE 10/542.189 07/14/2005 Shiro Kanegasaki 1752-0172PUS1 2696 TITLE OF INVENTION: APPARATUS FOR DETECTING CELL CHEMOTAXIS APPLN. TYPE SMALL ENTITY ISSUE FEE DUE PUBLICATION FEE DUE PREV. PAID ISSUE FEE TOTAL FEE(S) DUE DATE DUE nonprovisional NO \$1510 \$300 \$0 \$1810 08/30/2010 **EXAMINER** ART UNIT CLASS-SUBCLASS EDWARDS, LYDIA E 1797 435-288300 1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363). 2. For printing on the patent front page, list (1) the names of up to 3 registered patent attorneys ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached. or agents OR, alternatively, (2) the name of a single firm (having as a member a ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required. registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type) PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment. (A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY) 4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above) 4a. The following fee(s) are submitted: lssue Fee A check is enclosed. Publication Fee (No small entity discount permitted) Payment by credit card. Form PTO-2038 is attached. The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number ______ (enclose an extra copy of this fo Advance Order - # of Copies _ (enclose an extra copy of this form). 5. Change in Entity Status (from status indicated above) a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ■ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2). NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office. Authorized Signature Date Typed or printed name Registration No. This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

PTOL-85 (Rev. 08/07) Approved for use through 08/31/2010.

OMB 0651-0033

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450

P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/542,189	07/14/2005	Shiro Kanegasaki	1752-0172PUS1	2696
2292 75	90 05/28/2010		EXAM	INER
BIRCH STEWART KOLASCH & BIRCH PO BOX 747			EDWARDS, LYDIA E	
			ART UNIT	PAPER NUMBER
FALLS CHURCH, VA 22040-0747			1797	
		DATE MAILED: 05/28/2010		

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 428 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 428 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

	Application No.	Applicant(s)			
	10/542,189	KANEGASAKI, SHIRO			
Notice of Allowability	Examiner	Art Unit			
	LYDIA EDWARDS	1797			
The MAILING DATE of this communication apperature All claims being allowable, PROSECUTION ON THE MERITS IS herewith (or previously mailed), a Notice of Allowance (PTOL-85) NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RI of the Office or upon petition by the applicant. See 37 CFR 1.313	(OR REMAINS) CLOSED in this app or other appropriate communication GHTS. This application is subject to	olication. If not included will be mailed in due course. THIS			
1. This communication is responsive to the amendment filed	<u>4/30/2010</u> .				
2. \boxtimes The allowed claim(s) is/are <u>24-47</u> .					
 3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some* c) None of the: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No 3. Copies of the certified copies of the priority documents have been received in this national stage application from the 					
International Bureau (PCT Rule 17.2(a)).					
* Certified copies not received:					
Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.					
4. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.					
5. CORRECTED DRAWINGS (as "replacement sheets") mus	5. CORRECTED DRAWINGS (as "replacement sheets") must be submitted.				
(a) 🔲 including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached					
1) 🔲 hereto or 2) 🔲 to Paper No./Mail Date					
(b) ☐ including changes required by the attached Examiner's Paper No./Mail Date	s Amendment / Comment or in the C	office action of			
Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).					
6. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.					
Attachment(s) 1. ☐ Notice of References Cited (PTO-892)	5. ☐ Notice of Informal P	atent Application			
2. Notice of Draftperson's Patent Drawing Review (PTO-948)	6. ☐ Interview Summary Paper No./Mail Dat	(PTO-413),			
3. Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date	7. Examiner's Amendn	o nent/Comment			
Examiner's Comment Regarding Requirement for Deposit of Biological Material	8.	ent of Reasons for Allowance			
	<u> </u>				

Art Unit: 1797

DETAILED ACTION

Response to Arguments

Applicant's arguments, see amendment, filed 4/30/2010, with respect to the objections of claims 24-25 have been fully considered and are persuasive. The objections of claims 24-25 has been withdrawn.

Allowable Subject Matter

Claims 24-47 are allowed.

The following is an examiner's statement of reasons for allowance:

Regarding Claim 24, the closest prior art is represented by Kricka et al. who discloses an apparatus for detecting chemotaxis of cells which comprises; receiving well 32 (a cell-holding well having an opening for injecting cells); target chamber 22 (a specimen-holding well having an opening for injecting a specimen); mesoscale flow channel 20 and mesoscale filter 24 (a channel which connects said cell-holding well and specimen-holding well up with each other and has resistance to the passage of cells); delivery apparatus 110, such as a pipette or syringe; and removable seal 30a and sealant 30b (a means of sealing said opening(s) in one or both of said cell-holding well and said specimen holding well).

However, Kricka et al, fails to disclose or suggest a means of transporting said liquid from said cell-holding well to said specimen-holding well by an injection or an aspiration discharge of said liquid and then stopping the transportation of said liquid after said injection or said aspiration discharge of said liquid in order to control a position of each cell in said cell-holding well. Kricka et al, also fails to disclose or suggest wherein said cell-holding well and said specimen-holding well are connected via an injection pipe joined to said cell- holding well, an aspiration discharge pipe joined to said specimen-holding well and said means of transporting a liquid and a stopper to stop the transportation thereof between said pipes, to form a structure in which said liquid is circulated and therefore teaches away from the instant claim which requires a means of transporting said liquid from said cell-holding well to said specimen-holding well by an injection or an aspiration discharge of said liquid and then stopping the transportation of

said liquid after said injection or said aspiration discharge of said liquid in order to control a position of each cell in said cell-holding well; wherein said cell-holding well and said specimen-holding well are connected via an injection pipe joined to said cell-holding well, an aspiration discharge pipe joined to said specimen-holding well and said means of transporting a liquid and a stopper to stop the transportation thereof between said pipes, to form a structure in which said liquid is circulated.

Harrison et al. discloses a microfluidic system that is used to study the effects of compounds on individual cells comprising: a cell-holding well having an opening for injecting cells [6]; a specimen-holding well having an opening for injecting a specimen [6']; a channel [2] which connects said cell-holding well and specimen-holding well up with each other and a means for transporting said liquid from said cell-holding well to said specimen-holding well by an injection or an aspiration discharge of said liquid and then stopping the transportation of said liquid after said injection or said aspiration discharge of said liquid in order to control a position of each cell in said cell-holding well; wherein said means of transporting said liquid and stopping the transportation thereof is connected to said cell-holding well and/or said specimen-holding well via an injection pipe (syringe) and/or an aspiration discharge pipe (syringe). Harrison et al. like Kricka et al, also fails to disclose or suggest wherein said cell-holding well and said specimen-holding well are connected via an injection pipe joined to said cell-holding well, an aspiration discharge pipe joined to said specimen-holding well and said means of transporting a liquid and a stopper to stop the transportation thereof between said pipes, to form a structure in which said liquid is circulated and therefore teaches away from the instant claim.

Claim 25 depends on these distinctive features.

Regarding Claim 26, the closest prior art is represented by Kricka et al. who discloses an apparatus for detecting chemotaxis of cells which comprises; receiving well 32 (a cell-holding well having an opening for injecting cells); target chamber 22 (a

Art Unit: 1797

specimen-holding well having an opening for injecting a specimen); mesoscale flow channel 20 and mesoscale filter 24 (a channel which connects said cell-holding well and specimen-holding well up with each other and has resistance to the passage of cells); delivery apparatus 110, such as a pipette or syringe; and removable seal 30a and sealant 30b (a means of sealing said opening(s) in one or both of said cell-holding well and said specimen holding well).

However, Kricka et al, fails to disclose or suggest a means of transporting said liquid from said cell-holding well to said specimen-holding well by an injection or an aspiration discharge of said liquid and then stopping the transportation of said liquid after said injection or said aspiration discharge of said liquid in order to control a position of each cell in said cell-holding well. Kricka et al, also fails to disclose or suggest wherein said cell-holding well and said specimen-holding well are connected via an injection pipe joined to said cell-holding well, an aspiration discharge pipe joined to said specimenholding well and said means of transporting a liquid and a stopper to stop the transportation thereof between said pipes, to form a structure in which said liquid is circulated and therefore teaches away from the instant claim which requires a means of transporting said liquid from said cell-holding well to said specimen-holding well by an injection or an aspiration discharge of said liquid and then stopping the transportation of said liquid after said injection or said aspiration discharge of said liquid in order to control a position of each cell in said cell-holding well; wherein said cell-holding well and said specimen-holding well are connected via an injection pipe joined to said cellholding well, an aspiration discharge pipe joined to said specimen-holding well and said means of transporting a liquid and a stopper to stop the transportation thereof between said pipes, to form a structure in which said liquid is circulated.

Harrison et al. discloses a microfluidic system that is used to study the effects of compounds on individual cells comprising: a cell-holding well having an opening for injecting cells [6]; a specimen-holding well having an opening for injecting a specimen [6']; a channel [2] which connects said cell-holding well and specimen-holding well up with each other and a means for transporting said liquid from said cell-holding well to

Art Unit: 1797

said specimen-holding well by an injection or an aspiration discharge of said liquid and then stopping the transportation of said liquid after said injection or said aspiration discharge of said liquid in order to control a position of each cell in said cell-holding well; wherein said means of transporting said liquid and stopping the transportation thereof is connected to said cell-holding well and/or said specimen-holding well via an injection pipe (syringe) and/or an aspiration discharge pipe (syringe). Harrison et al. like Kricka et al, also fails to disclose or suggest wherein said cell-holding well and said specimen-holding well are connected via an injection pipe joined to said cell-holding well, an aspiration discharge pipe joined to said specimen-holding well and said means of transporting a liquid and a stopper to stop the transportation thereof between said pipes, to form a structure in which said liquid is circulated and therefore teaches away from the instant claim.

Claims 27-32 depends on these distinctive features.

Regarding Claim 33, the closest prior art is represented by Kricka et al. who discloses an apparatus for detecting chemotaxis of cells which comprises; receiving well 32 (a cell-holding well having an opening for injecting cells); target chamber 22 (a specimen-holding well having an opening for injecting a specimen); mesoscale flow channel 20 and mesoscale filter 24 (a channel which connects said cell-holding well and specimen-holding well up with each other and has resistance to the passage of cells); delivery apparatus 110, such as a pipette or syringe; and removable seal 30a and sealant 30b (a means of sealing said opening(s) in one or both of said cell-holding well and said specimen holding well).

However, Kricka et al, fails to disclose or suggest a means of transporting said liquid from said cell-holding well to said specimen-holding well by an injection or an aspiration discharge of said liquid and then stopping the transportation of said liquid after said injection or said aspiration discharge of said liquid in order to control a position of each cell in said cell-holding well. Kricka et al, also fails to disclose or suggest wherein said cell-holding well has an injection pipe while said specimen-holding well has an aspiration discharge pipe and a specimen injection port is sealed with a flexible stopper

and wherein the injection pipe and said aspiration discharge pipe are connected by a means of transporting which circulates a liquid in a single direction and therefore teaches away from the instant claim which requires a means of transporting said liquid from said cell-holding well to said specimen-holding well by an injection or an aspiration discharge of said liquid and then stopping the transportation of said liquid after said injection or said aspiration discharge of said liquid in order to control a position of each cell in said cell-holding well; wherein said cell-holding well has an injection pipe while said specimen-holding well has an aspiration discharge pipe and a specimen injection port is sealed with a flexible stopper and wherein the injection pipe and said aspiration discharge pipe are connected by a means of transporting which circulates a liquid in a single direction.

Harrison et al. discloses a microfluidic system that is used to study the effects of compounds on individual cells comprising: a cell-holding well having an opening for injecting cells [6]; a specimen-holding well having an opening for injecting a specimen [6']; a channel [2] which connects said cell-holding well and specimen-holding well up with each other and a means for transporting said liquid from said cell-holding well to said specimen-holding well by an injection or an aspiration discharge of said liquid and then stopping the transportation of said liquid after said injection or said aspiration discharge of said liquid in order to control a position of each cell in said cell-holding well; wherein said means of transporting said liquid and stopping the transportation thereof is connected to said cell-holding well and/or said specimen-holding well via an injection pipe (syringe) and/or an aspiration discharge pipe (syringe). Harrison et al. like Kricka et al, also fails to disclose or suggest wherein said cell-holding well has an injection pipe while said specimen-holding well has an aspiration discharge pipe and a specimen injection port is sealed with a flexible stopper and wherein the injection pipe and said aspiration discharge pipe are connected by a means of transporting which circulates a liquid in a single direction and therefore teaches away from the instant claim.

Claims 34-39 depends on these distinctive features.

Art Unit: 1797

Regarding Claim 40, the closest prior art is represented by Kricka et al. who discloses an apparatus for detecting chemotaxis of cells which comprises; receiving well 32 (a cell-holding well having an opening for injecting cells); target chamber 22 (a specimen-holding well having an opening for injecting a specimen); mesoscale flow channel 20 and mesoscale filter 24 (a channel which connects said cell-holding well and specimen-holding well up with each other and has resistance to the passage of cells); delivery apparatus 110, such as a pipette or syringe; and removable seal 30a and sealant 30b (a means of sealing said opening(s) in one or both of said cell-holding well and said specimen holding well).

However, Kricka et al, fails to disclose or suggest a means of transporting said liquid from said cell-holding well to said specimen-holding well by an injection or an aspiration discharge of said liquid and then stopping the transportation of said liquid after said injection or said aspiration discharge of said liquid in order to control a position of each cell in said cell-holding well. Kricka et al, also fails to disclose or suggest wherein said cell-holding well having an opening for injecting cells and a specimen-holding well having an opening for injecting a specimen which are formed by a substrate having a raised bank in the middle thereof and a glass substrate and are divided into each other by said raised bank and therefore teaches away from the instant claim which requires a means of transporting said liquid from said cell-holding well to said specimen-holding well by an injection or an aspiration discharge of said liquid and then stopping the transportation of said liquid after said injection or said aspiration discharge of said liquid in order to control a position of each cell in said cell-holding well; wherein said cellholding well having an opening for injecting cells and a specimen-holding well having an opening for injecting a specimen which are formed by a substrate having a raised bank in the middle thereof and a glass substrate and are divided into each other by said raised bank.

Harrison et al. discloses a microfluidic system that is used to study the effects of compounds on individual cells comprising: a cell-holding well having an opening for injecting cells [6]; a specimen-holding well having an opening for injecting a specimen

[6']; a channel [2] which connects said cell-holding well and specimen-holding well up with each other and a means for transporting said liquid from said cell-holding well to said specimen-holding well by an injection or an aspiration discharge of said liquid and then stopping the transportation of said liquid after said injection or said aspiration discharge of said liquid in order to control a position of each cell in said cell-holding well; wherein said means of transporting said liquid and stopping the transportation thereof is connected to said cell-holding well and/or said specimen-holding well via an injection pipe (syringe) and/or an aspiration discharge pipe (syringe). Harrison et al. like Kricka et al, also fails to disclose or suggest wherein said cell-holding well having an opening for injecting cells and a specimen-holding well having an opening for injecting a specimen which are formed by a substrate having a raised bank in the middle thereof and a glass substrate and are divided into each other by said raised bank and therefore teaches away from the instant claim.

Claims 41-47 depends on these distinctive features.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LYDIA EDWARDS whose telephone number is (571)270-3242. The examiner can normally be reached on Mon-Thur 6:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Walter Griffin can be reached on 571.272.1447. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/LYDIA EDWARDS/ Examiner Art Unit 1797

LE

/Walter D. Griffin/ Supervisory Patent Examiner, Art Unit 1797